

Application No.: 10/595,081  
Amendment Dated: January 7, 2009  
Reply to Office Action of: November 18, 2008

MAT-8798US

**Remarks/Arguments:**

Claims 1-3 and 5-9 are pending. Claim 10 is cancelled. The specification has been amended to correct a typographical error. On page 11, lines 6 and 7, the specification states "the vacuum heat insulators in samples E1 to E5 using no binding material have heat conductivity of 0.018 to 0.002 W/mK." As is evident in Table 1, however, heat conductivity values for samples E1 to E5 range from 0.0018 to 0.002 W/mK. As 0.018 W/mK at page 11, line 7 was merely a typographical error and should have read 0.0018 W/mK, no new matter has been added.

Claims 1-3 and 5-10 stand rejected under 35 U.S.C. § 112 as failing to comply with the enablement requirement. Applicants traverse the rejection.

The Office Action states "[t]here is no original disclosure directed to a 'strain point' as is now set for in claims 1, 9, and 10." Contrary to this assertion, however, Applicants explained previously that "distortion point" appeared in the English language National Phase application due to a translation error, and "strain point" is the correct translation of the original Japanese language PCT International Phase application. Thus, in the original Japanese filing of PCT/JP2005/001874, "strain point" was originally disclosed. The specification has been amended to correct the translation error. No new matter has been added. Withdrawal of the rejection is respectfully requested.

The Office Action further states "the original disclosure does not support the claimed range of heat conductivity less than or equal to 0.0020 W/mK." The examples in the Table and throughout the specification, however, are just that, examples merely showing embodiments of the claimed invention. "The specification need not contain an example if the invention is otherwise disclosed in such manner that one skilled in the art will be able to practice it without an undue amount of experimentation." In re Borkowski, 422 F.2d 904, 908, 164 USPQ 642, 645 (CCPA 1970). See also MPEP § 2164.02.

It is clearly explained throughout the specification that the vacuum heat insulator of the present invention has **extremely low** heat conductivity and very high heat insulation performance. See page 16, lines 14-17 of the specification. It is

explained that cores without a binding material have lower conductivity and higher insulation than cores which contain a binding material. See page 4, lines 6-15. Comparative examples containing a binding material are characterized as having high heat conductivities, *for example*, at least 0.0027 W/mK and higher. See Table 1, comparative example C1, and page 11, lines 1-5.

With particular emphasis on certain provisions of the specification, low heat conductivity is explained in the specification as follows:

Since the binding region which conventionally works as a thermal cross-link does not exist, the number of heat transfer points between the fibers significantly decreases, and the heat transfer amount is suppressed.

Page 4, lines 6-15 of the specification.

In vacuum heat insulator 1, binding material made of the binder component or the component eluting from the fibers does not exist at the intersection point of fibers 5. Since the binding region which has conventionally worked as a thermal cross-link does not exist, the number of heat transfer points between the fibers decreases. The heat conduction in the thickness direction of core 2 is thus reduced, and the heat insulation performance is improved.

Page 7, line 27 to page 8, line 7 of the specification.

One of ordinary skill in the art would be familiar with heat conductivity or the ability of a material to conduct or transfer heat. Thus, it is clear from the above passages that heat conduction is reduced or heat transfer is suppressed, and correspondingly heat insulation is enhanced. The specification provides examples in the range claimed which support the heat conductivity limitations in the currently pending claims. Furthermore, the specification highlights the desire for **extremely low** heat conductivity values, one of the unexpected results of the present invention. Thus, the invention is enabled as it is disclosed throughout the specification in such a manner that one skilled in the art would be able to make, use, and practice the invention without undue experimentation. There is reasonable enablement of the scope of the range, and accordingly, withdrawal of the rejection is respectfully requested.

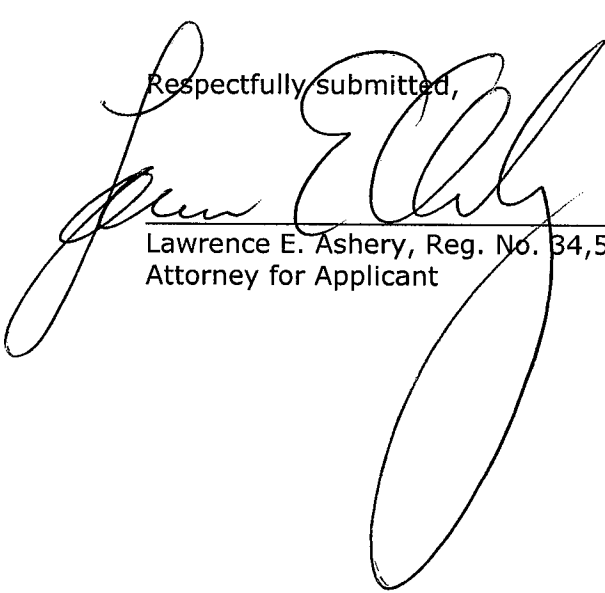
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Claims 2, 3, and 5-9 include all the features of claim 1 from which they depend, and should be allowable for the same reasons set forth above.

In view of the amendments and arguments set forth above, the above-identified application is in condition for allowance which action is respectfully requested.

Respectfully submitted,



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